

117/81,82,83,200,204
print Fig. 2a

10/611, 506

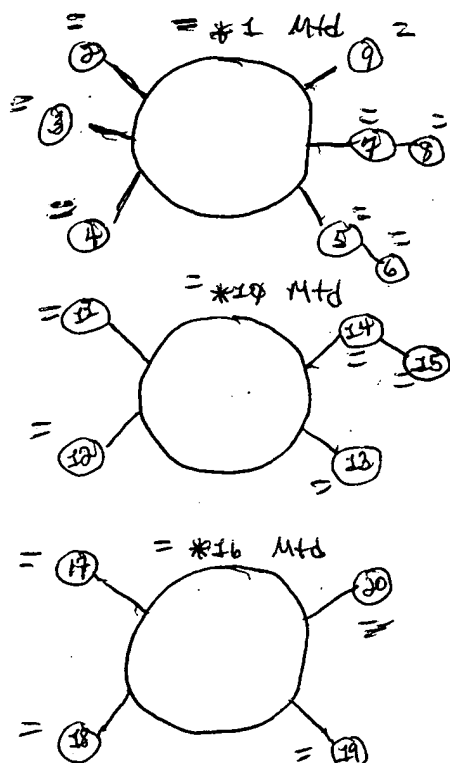
Examiner's Notes

- 1 s(optical(w) fluoride) (8a) (crystal#)
- 2 s(Bridgman(w) Stockbarger)
- 3 s(Fa fluoride) (4a) (raw (w) material (8a) powder) or material (6a) powder)
- 4 s(mold or flexible (4a) mold)
- 5 s(pressure or isostatic (w) pressure#)
- 6 s(compress? or compact? or solidify?)
- 7 s(CaF₂ or calcium (w) fluoride or BaF₂ or barium (w) fluoride or MgF₂ or magnesium (w) fluoride or SrF₂ or strontium (w) fluoride or LiF or lithium (w) fluoride or NaF or Sodium (w) fluoride)
- 8 s(metal? (4a) fluoride)

M₃ AlF₆ and (M₁)_x (M₂)_{1-x}F₂
M = Li, Na, K, Rb & Cs

M₁ & M₂ = Ca, Br, Mg, Sr, Li, Na

6,802,901
6,374,332
6,132,508
5,997,640
5,993,545
10/263,048 Matt Song
6,238,479



Hupton, et al. teaches a process for producing a sintered, rhenium crucible, highly suitable for growing single crystals from refractory metal oxides. The crucible compact is formed from fine rhenium powder by isostatic cold pressing at a pressure of 300 to 700 MPa, then sintered at 500 to 2800°C in vacuum. (column 3, lines 9-33)

Search History

STN
(HCAPLWS, USPATALL, JAP20, INSPEC)
12/29/04

=> d 116 1-4 abs, bib

L16 ANSWER 1 OF 4 USPATFULL on STN

AB The present invention relates to the manufacturing of high purity optical fluoride crystals, the making of purified optical fluoride crystal feedstocks and to the anionic purification of optical fluoride crystalline materials. The invention relates generally to methods for removing oxide impurities from optical fluoride crystal feedstocks. More specifically, the invention relates to a method for preparing purified optical fluoride crystal feedstocks and the use of the feedstock in manufacturing VUV<200 nm transmission optical fluoride crystals for VUV lithography/laser systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:131231 USPATFULL
TI Method of making high purity optical fluoride crystals
IN Kerdoncuff, Alain, Vincennes, FRANCE
Mayolet, Alexandre M., Auneau, FRANCE
PI US 2003089304 A1 20030515
* US 6802901 B2 20041012
AI US 2002-198526 A1 20020718 (10)
PRAI FR 2001-9710 20010720
DT Utility
FS APPLICATION
LREP CORNING INCORPORATED, SP-TI-3-1, CORNING, NY, 14831
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 9 Drawing Page(s)
LN.CNT 522

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 4 USPATFULL on STN

AB A method for making a below 200-nm wavelength optical fluoride crystal feedstock includes loading a fluoride raw material into a chamber, exposing the fluoride raw material to a flow of gaseous fluoride at a predetermined temperature, and storing the exposed fluoride raw material in a dry atmosphere.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:103713 USPATFULL
TI Preparation of feedstock of alkaline earth and alkali metal fluorides
IN LeBlond, Nicolas, Corning, NY, UNITED STATES
Mayolet, Alexandre M., Auneau, FRANCE
Pell, Michael A., UNITED STATES
Whalen, Joseph M., Corning, NY, UNITED STATES
PI US 2003070606 A1 20030417
AI US 2002-263048 A1 20021001 (10)
PRAI US 2001-327654P 20011005 (60)
DT Utility
FS APPLICATION
LREP CORNING INCORPORATED, SP-TI-3-1, CORNING, NY, 14831
CLMN Number of Claims: 59
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 3 OF 4 USPATFULL on STN

AB An optical member for photolithography made of a calcium fluoride crystal exhibits an internal transmittance of 99.5%/cm or greater with respect to light having a specific wavelength of 185 nm or shorter.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:89223 USPATFULL

TI Optical member for photolithography and photolithography apparatus

IN Sakuma, Shigeru, Chigasaki, JAPAN

Shiozawa, Masaki, Sagamihara, JAPAN

PA ~~Nikon Corporation, Tokyo, JAPAN (non-U.S. corporation)~~

* ~~PI US 6377332 B1 20020423~~

AI US 2000-494039 20000131 (9)

PRAI JP 1999-26746 19990203

JP 1999-37481 19990216

DT Utility

FS GRANTED

EXNAM Primary Examiner: Mathews, Alan A.; Assistant Examiner: Nguyen, Hung Henry

LREP Oliff & Berridge PLC

CLMN Number of Claims: 22

ECL Exemplary Claim: 1

DRWN 6 Drawing Figure(s); 6 Drawing Page(s)

LN.CNT 860

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 4 OF 4 USPAT2 on STN

AB The present invention relates to the manufacturing of high purity optical fluoride crystals, the making of purified optical fluoride crystal feedstocks and to the anionic purification of optical fluoride crystalline materials. The invention relates generally to methods for removing oxide impurities from optical fluoride crystal feedstocks. More specifically, the invention relates to a method for preparing purified optical fluoride crystal feedstocks and the use of the feedstock in manufacturing VUV 200 nm transmission optical fluoride crystals for VUV lithography/laser systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:131231 USPAT2

TI Method of making high purity optical fluoride crystals

IN Kerdoncuff, Alain, Vincennes, FRANCE

Mayolet, Alexandre M., Auneau, FRANCE

PA Corning Incorporated, Corning, NY, United States (U.S. corporation)

PI US 6802901 B2 20041012

AI US 2002-198526 20020718 (10)

PRAI FR 2001-9710 20010720

DT Utility

FS GRANTED

EXNAM Primary Examiner: Hiteshew, Felisa

LREP Douglas, Walter M.

CLMN Number of Claims: 30

ECL Exemplary Claim: 1

DRWN 11 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 521

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

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DELETE HIS

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 09:01:05 ON
29 DEC 2004

L1 70 S (OPTICAL(W) FLUORIDE) (8A) (CRYSTAL#)

L2 1062 S (BRIDGMAN(W) STOCKBARGER)

L3 473 S (F OR FLUORIDE) (4A) (RAW(W) MATERIAL (6A) POWDER# OR MATERIAL (6A)

L4 461562 S (MOLD OR FLEXIBLE (4A) MOLD)

L5 3528654 S (PRESSURE OR ISOTATIC(W) PRESSURE)
 L6 2144295 S (COMPRESS? OR COMPACT? OR SOLIDIFY?)
 L7 138980 S (CAF2 OR CALCIUM(W) FLUORIDE OR BAF2 OR BARIUM(W) FLUORIDE OR M
 L8 18441 S (METAL? (4A) FLUORIDE)
 L9 0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
 L10 2669365 S (OPTICAL?)
 L11 45883 S (F OR FLUORIDE) (8A) (CRYSTAL?)
 L12 1 S L2 AND L3 AND L5 AND L6 AND L7 AND L10 AND L11
 L13 0 S L1 AND L2 AND L3 AND L4
 L14 0 S L2 AND L3 AND L4
 L15 1062 S L2 AND L2
 L16 4 S L2 AND L3
 L17 11 S L2 AND L4

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Search History

STN
(HCAPLUS, INSPEC, JAPIO, USPATALL)
12/29/04

=> d his

(FILE 'HCAPLUS, INSPEC, JAPIO' ENTERED AT 09:00:37 ON 29 DEC 2004)
DELETE HIS

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 09:01:05 ON
29 DEC 2004

L1 70 S (OPTICAL(W) FLUORIDE) (8A) (CRYSTAL#)
L2 1062 S (BRIDGMAN(W) STOCKBARGER)
L3 473 S (F OR FLUORIDE) (4A) (RAW(W) MATERIAL(6A) POWDER# OR MATERIAL(6A)
L4 461562 S (MOLD OR FLEXIBLE(4A) MOLD)
L5 3528654 S (PRESSURE OR ISOTATIC(W) PRESSURE)
L6 2144295 S (COMPRESS? OR COMPACT? OR SOLIDIFY?)
L7 138980 S (CAF2 OR CALCIUM(W) FLUORIDE OR BAF2 OR BARIUM(W) FLUORIDE OR M
L8 18441 S (METAL? (4A) FLUORIDE)
L9 0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
L10 2669365 S (OPTICAL?)
L11 45883 S (F OR FLUORIDE) (8A) (CRYSTAL?)
L12 1 S L2 AND L3 AND L5 AND L6 AND L7 AND L10 AND L11
L13 0 S L1 AND L2 AND L3 AND L4
L14 0 S L2 AND L3 AND L4
L15 1062 S L2 AND L2
L16 4 S L2 AND L3
L17 11 S L2 AND L4

=> d 117 1-11 abs,bib

L17 ANSWER 1 OF 11 USPATFULL on STN

AB A single crystal pulling apparatus for a metal fluoride comprising a crucible provided in a chamber and filling a molten solution of a single crystal manufacturing material, a melting heater provided to surround the crucible, a vertically movable single crystal pulling bar including a seed crystal on a tip and coming in contact with the molten solution of the single crystal manufacturing material filled in the crucible, a heat insulating wall provided in the chamber to surround at least a peripheral side portion of a single crystal pulling region in an upper part of the crucible, a ceiling board for closing an opening portion of an upper end in an upper part of the heat insulating wall, and a single crystal pulling chamber surrounded by the heat insulating wall and the ceiling board, wherein the ceiling board is provided with at least an inserting hole for inserting the single crystal pulling bar, and a coefficient of thermal conductivity in a direction of a thickness of the ceiling board is 1000 to 50000 W/m.sup.2.multidot.K.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2004:130683 USPATFULL
TI Single crystal pulling apparatus for a metal fluoride
IN Nawata, Teruhiko, Shunan-shi, JAPAN
Miyazaki, Hidetaka, Shunan-shi, JAPAN
Yanagi, Hiroyuki, Shunan-shi, JAPAN
Nitta, Shinichi, Tokyo, JAPAN
Ito, Harumasa, Tokyo, JAPAN
Yamaga, Isao, Tokyo, JAPAN
PA TOKUYAMA CORPORATION (non-U.S. corporation)
PI US 2004099210 A1 20040527
AI US 2003-717018 A1 20031119 (10)
PRAI JP 2002-334528 20021119
DT Utility
FS APPLICATION
LREP Kent E. Baidauf, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh,
PA, 15219-1818
CLMN Number of Claims: 7
ECL Exemplary Claim: 1

DRWN 4 Drawing Page(s)
LN.CNT 919
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 2 OF 11 USPATFULL on STN

AB Fused, crystalline eutectic material comprising aluminum oxycarbide/nitride-Al.sub.20.sub.3 rare earth oxide eutectics. Examples of useful articles comprising the fused eutectic material include fibers and abrasive particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:169002 USPATFULL
TI Fused aluminum oxycarbide/nitride-Al₂O₃.multidot.rare earth oxide eutectic materials
IN Rosenflanz, Anatoly Z., Maplewood, MN, United States
PA 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)
PI US 6583080 B1 20030624
AI US 2000-619106 20000719 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marcheschi, Michael
LREP Allen, Gregory D.
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1454
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 3 OF 11 USPATFULL on STN

AB Fused, crystalline eutectic material comprising Al.sub.20.sub.3-rare earth oxide-ZrO.sub.2 eutectic. Examples of useful articles comprising the fused eutectic material include fibers and abrasive particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:168707 USPATFULL
TI Fused Al₂O₃-rare earth oxide-ZrO₂ eutectic materials
IN Rosenflanz, Anatoly Z., Maplewood, MN, United States
PA 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)
PI US 6582488 B1 20030624
AI US 2000-619192 20000719 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marcheschi, Michael
LREP Allen, Gregory D.
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 27 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2146
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 4 OF 11 USPATFULL on STN

AB Fused, crystalline eutectic material comprising aluminum oxycarbide/nitride-Al.sub.20.sub.3.Y.sub.20.sub.3 eutectics. Examples of useful articles comprising the fused eutectic material include fibers and abrasive particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:254313 USPATFULL
TI Fused aluminum oxycarbide/nitride-AL₂O₃.Y₂O₃ eutectic materials
IN Rosenflanz, Anatoly Z., Maplewood, MN, United States
PA 3M Innovative Properties Company, St. Paul, MN, United States (U.S.

corporation)
PI US 6458731 B1 20021001
AI US 2000-619215 20000719 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marcheschi, Michael
LREP Allen, Gregory D.
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1421
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 5 OF 11 USPATFULL on STN

AB A multi-shelled melt container is disclosed for liquefying and crystallizing substances which comprises at least an inner shell and a bearing shell. While the inner shell--which has a thin wall in comparison to the wall of the bearing shell--consists of an inert material with respect to the melt, the bearing shell serves exclusively to fixate and support the inner shell and is correspondingly constructed in a mechanically stable fashion. The device can also comprise means to pump the melt over into a collection vessel.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2000:137599 USPATFULL
TI Device and method for liquefying and crystallizing substances
IN Berthold, Thomas, Munich, Germany, Federal Republic of
Boedinger, Hermann, Munich, Germany, Federal Republic of
PA Siemens Aktiengesellschaft, Munich, Germany, Federal Republic of
(non-U.S. corporation)
PI US 6132508 20001017
AI US 1999-412065 19991004 (9)
RLI Division of Ser. No. US 1998-132545, filed on 11 Aug 1998, now patented,
Pat. No. US 5997640
DT Utility
FS Granted
EXNAM Primary Examiner: Garrett, Felisa
LREP Hill & Simpson
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 6 OF 11 USPATFULL on STN

AB A multi-shelled melt container is disclosed for liquefying and crystallizing substances which comprises at least an inner shell and a bearing shell. While the inner shell--which has a thin wall in comparison to the wall of the bearing shell--consists of an inert material with respect to the melt, the bearing shell serves exclusively to fixate and support the inner shell and is correspondingly constructed in a mechanically stable fashion. The device can also comprise means to pump the melt over into a collection vessel.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 1999:159258 USPATFULL
TI Device and method for liquefying and crystallizing substances
IN Berthold, Thomas, Munich, Germany, Federal Republic of
Boedinger, Hermann, Munich, Germany, Federal Republic of
PA Siemens Aktiengesellschaft, Munich, Germany, Federal Republic of
(non-U.S. corporation)
PI US 5997640 19991207
AI US 1998-132545 19980811 (9)

DT Utility
FS Granted
EXNAM Primary Examiner: Hiteshew, Felisa
LREP Hill & Simpson
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 597
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 7 OF 11 USPATFULL on STN

AB A sintered rhenium crucible, highly suitable for growing single crystals from refractory metal oxides, for example by the Czochralski technique, is formed of fine rhenium powder, by sintering. A compact is formed by cold isostatic pressing and thereafter the compact is sintered at 500-2800° C. to obtain a sintered crucible. Product density is limited to 88-95% of theroretical in order to maximize creep resistance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 1999:154929 USPATFULL
TI Crucible for growing single crystals, process for making the same and use of the same
IN Lupton, David Francis, Gelnhausen, Germany, Federal Republic of
Schielke, Jorg, Bruchkobel, Germany, Federal Republic of
Weigelt, Manfred, Linsengericht, Germany, Federal Republic of
Petermann, Klaus, Wedel, Germany, Federal Republic of
Mix, Eric, Hamburg, Germany, Federal Republic of
Fornasiero, Livio, Norderstedt, Germany, Federal Republic of
PA W.C. Heraeus GmbH & Co. KG, Hanau, Germany, Federal Republic of
(non-U.S. corporation)

*PI US 5993545 19991130

AI US 1998-5327 19980109 (9)

PRAI DE 1997-19702465 19970124

DT Utility

FS Granted

EXNAM Primary Examiner: Utech, Benjamin; Assistant Examiner: Champagne, Donald
L.

LREP Frishauf, Holtz, Goodman, Langer & Chick, P.C.

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN 3 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 342

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 8 OF 11 USPATFULL on STN

AB This invention aims at casting a large silicon crystal grain-containing ingot (14) by melting a silicon material (20) by scanning the same with an electron beam, and gradually cooling molten silicon (5) thus obtained. A method of casting a crystalline silicon ingot by electron beam melting, involves of the steps of melting a silicon material (20) by scanning the same with an electron beam, cooling the outer lower surface of molten silicon (5) thus produced while increasing the temperature of the molten silicon (5) suitably so as to generate crystals thereof, and gradually precipitating a crystalline silicon ingot (14) by the weight of itself in accordance with the generation of the crystals. An apparatus is provided for casting crystalline silicon ingot by electron beam melting, in which silicon material supply means (2, 3) are provided at one side of a cold hearth (1), one side portion of a crucible (8, 8a) being joined to the upper portion of the other side of the cold hearth (1) via a groove (7), electron guns (16 a, 16), a cooling means (10, 10a) being attached to the wall of the crucible (8, 8a), retaining means (15, 15a) for crystalline silicon ingot (14) being provided at the lower side of the crucible (8, 8a) so that the retaining

means for the crystalline silicon ingot (14) can be vertically moved or both vertically and rotationally moved. The crystalline silicon ingot is lifted up at some point at a very slow speed so as to remove some part of the molten silicon which has a high concentration of impurities.

AN 95:87646 USPATFULL
TI Method of and apparatus for casting crystalline silicon ingot by electron beam melting
IN Mori, Nobuyuki, 4-45-4, Kamitakada, Nakano-ku, Tokyo, Japan
Maeda, Masafumi, Niiza, Japan
PA Mori, Nobuyuki, Tokyo, Japan (non-U.S. individual)
PI US 5454424 19951003
WO 9312272 19930624
AI US 1993-107704 19930818 (8)
WO 1992-JP1646 19921217
19930818 PCT 371 date
19930818 PCT 102(e) date
PRAI JP 1991-353585 19911218
DT Utility
FS Granted
EXNAM Primary Examiner: Rosenbaum, Mark; Assistant Examiner: Miner, James
LREP Wenderoth, Lind & Ponack
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 12 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 633

L17 ANSWER 9 OF 11 USPATFULL on STN

AB Growth of monocrystalline rods from a bulk melt is carried out by a modified Czochralski process using a float which floats on the bulk melt held in a crucible. Melt flows through a passageway in the float to a crystal growth zone at a rate which prevents diffusion of dopant from the growth zone to the bulk melt. The shape of the crystal may be determined by a shaper wall in the float which defines the growth zone, in which case the crystal body is pulled from the float as it grows without rotating the crystal. The temperature of the float near the shaper wall may be monitored and controlled to control the crystallization process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 94:105785 USPATFULL
TI Method and apparatus for crystal growth with shape and segregation control
IN Kou, Sindo, Madison, WI, United States
Lin, Ming-Hsien, Madison, WI, United States
PA Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)
PI US 5370078 19941206
AI US 1992-983776 19921201 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Breneman, R. Bruce; Assistant Examiner: Garrett, Felisa
LREP Foley & Lardner
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 23 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1178

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 10 OF 11 USPATFULL on STN

AB High-quality castings are formed by:

(a) placing a molten material in contact with a first electrode formed from a conductive material and a second electrode formed from a semiconductive metal oxide, and

(b) passing an electric current between the first second electrodes while the molten material is cooling at a current density of from 10 to 500 mA/cm.^{sup.2}.

AN 93:86487 USPATFULL
TI Method and apparatus for controlling solidification of metals and other materials
IN Misra, Asoka K., 159 E. 30 St. Apt. #14A, New York, NY, United States 10016
PI US 5253696 19931019
AI US 1992-900561 19920618 (7)
RLI Continuation-in-part of Ser. No. US 1992-865109, filed on 8 Apr 1992, now abandoned And a continuation-in-part of Ser. No. US 1992-876760, filed on 1 May 1992
DT Utility
FS Granted
EXNAM Primary Examiner: Lin, Kuang Y.
LREP Brumbaugh, Graves, Donohue & Raymond
CLMN Number of Claims: 19
ECL Exemplary Claim: 1,10
DRWN 7 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 390

L17 ANSWER 11 OF 11 USPATFULL on STN

AB An inventive method is described for chemically machining rhenium, rhenium and tungsten alloy, and group 5b and 6b crucibles or molds from included ingots and castings comprised of oxide crystals including YAG and YAG based crystals, garnets, corundum crystals, and ceramic oxides. A mixture of potassium hydroxide and 15 to 90 weight percent of potassium nitrate is prepared and maintained at a temperature above melting and below the lower of 500 degrees centigrade or the temperature of decomposition of the mixture. The enveloping metal container together with its included oxide crystal object is rotated within the heated KOH-KNO₃ mixture, until the container is safely chemically machined away from the included oxide crystal object.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 91:60513 USPATFULL
TI Nondestructive method for chemically machining crucibles or molds from their enclosed ingots and castings
IN Stout, Norman D., Livermore, CA, United States
Newkirk, Herbert W., Livermore, CA, United States
PA The United States of America as represented by the United States Department of Energy, Washington, DC, United States (U.S. government)
PI US 5035769 19910730
AI US 1989-417146 19891004 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Lacey, David L.; Assistant Examiner: Johnson, Lori
LREP Carnahan, L. E., Sartorio, Henry P., Moser, William R.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 257
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Search History

STN
(HCAPLUS, USPATFLL, INSPEC, JAPIO)
12/29/04

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DELETE HIS

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 09:01:05 ON
29 DEC 2004

L1 70 S (OPTICAL(W) FLUORIDE) (8A) (CRYSTAL#)
L2 1062 S (BRIDGMAN(W) STOCKBARGER)
L3 473 S (F OR FLUORIDE) (4A) (RAW(W) MATERIAL(6A) POWDER# OR MATERIAL(6A)
L4 461562 S (MOLD OR FLEXIBLE(4A) MOLD)
L5 3528654 S (PRESSURE OR ISOTATIC(W) PRESSURE)
L6 2144295 S (COMPRESS? OR COMPACT? OR SOLIDIFY?)
L7 138980 S (CAF2 OR CALCIUM(W) FLUORIDE OR BAF2 OR BARIUM(W) FLUORIDE OR M
L8 18441 S (METAL? (4A) FLUORIDE)
L9 0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
L10 2669365 S (OPTICAL?)
L11 45883 S (F OR FLUORIDE) (8A) (CRYSTAL?)

=> s 12 and 13 and 15 and 16 and 17 and l10 and l11

L12 1 L2 AND L3 AND L5 AND L6 AND L7 AND L10 AND L11

=> d l12 abs, bib

L12 ANSWER 1 OF 1 USPATFULL on STN

AB A method for making a below 200-nm wavelength **optical fluoride crystal** feedstock includes loading a **fluoride** raw material into a chamber, exposing the fluoride raw material to a flow of gaseous fluoride at a predetermined temperature, and storing the exposed fluoride raw material in a dry atmosphere.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:103713 USPATFULL

TI Preparation of feedstock of alkaline earth and alkali metal fluorides

IN LeBlond, Nicolas, Conring, NY, UNITED STATES

Mayolet, Alexandre M., Auneau, FRANCE

Pell, Michael A., UNITED STATES

Whalen, Joseph M., Corning, NY, UNITED STATES

PI US 2003070606 A1 20030417

*AI US 2002-263048 A1 20021001 (10)

PRAI US 2001-327654P 20011005 (60)

DT Utility

FS APPLICATION

LREP CORNING INCORPORATED, SP-TI-3-1, CORNING, NY, 14831

CLMN Number of Claims: 59

ECL Exemplary Claim: 1

DRWN 5 Drawing Page(s)

LN.CNT 673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>